

Math 155 – Calculus I

Text: “Calculus (2nd Edition)”, by Smith and Minton.

Prerequisite Check: During the first week of classes we will check whether you have the pre-requisites for Calculus I. Students for whom we are unable to find prerequisite data should see Chris Wilson in the Math Learning Center, 301 Armstrong. **Students not meeting the prerequisites will be administratively deleted from the course.**

Grades: Grades will be assessed based on a total of 758 points (as shown below), using the standard decade scale: (90–100% = A, 80–89% = B, 70–79% = C, 60–69% = D, below 60% = F). Attendance will be monitored. Grades will be determined in common.

Four (4) 1-hour exams (100points each)	400pts
Comprehensive Final Exam	200pts
Quizzes and/or Homework	80pts
Thirteen (13) Worksheets (6 points each)	78pts
Total	758pts

Weekly worksheets (15-20 problems per week) will be assigned and graded. Additional quizzes/homework may be given by individual instructors. (The weekly worksheet assignments are given at the end of this syllabus).

Exams will be at 5:30PM on September 9th, September 30th, October 21st, November 11th. A **make-up exam** will be offered at 7:30pm on the same day for those who have a course conflict with the 5:30 time. Arrangements need to be made with your instructor in advance to take the exam during the make-up time. The Exams will be graded in common for all sections. **An additional make-up exam** is scheduled during the week from November 24-November 28 for those students who cannot take exams at either 5:30pm or 7:30pm regularly scheduled exams and who have a justifiable documented excuse. Students who have to take this additional make-up exam must register via their instructors on or before Wednesday, November 12, 2003.

The Final Exam is on Tuesday, December 9th, 11:00–13:00.

Calculus Readiness Assessment: During the second week, you will be asked to complete a Calculus Readiness Assessment Exam. It will assess algebra skills and Pre-calculus and trigonometric basics. The results will be returned to you with a recommendation about any areas in which a review would help you achieve success in calculus.

Liberal Studies Program: This course has been certified as a part of WVU’s Liberal Studies Program, Math and Natural Sciences (cluster C). It will focus in part on increasing your ability to communicate effectively, understand an interdependent world, and use quantitative and scientific knowledge effectively.

WVU Social Justice Statement: West Virginia University is committed to social justice. I expect to maintain a positive learning environment based on upon open communication, mutual respect, and non-discrimination. It is our university’s policy that no discrimination on the basis of race, sex, age, disability, veteran status, religion, sexual orientation, color, or national origin will be tolerated. Any suggestions as to how to further such a positive and open environment in this class will be appreciated and given serious consideration.

If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise me and make appropriate arrangements with Disability Services (293-6700).

Homework: Please note that the homework problems assigned below have been chosen to give the student an idea of the range of problems s/he is expected to be able to work. The number of assigned problems has been kept at a reasonable amount, and the student is expected to do **all** of the assigned problems. Your Instructor may add to these assignment if s/he wishes to put particular emphasis on a specific topic.

In the **Assigned Problems** below, there are some **writing exercises** (usually the first few in each assignment). These exercises are important for us to understand what we are learning. Students are strongly encouraged to discuss such problems in groups and/or invite the instructor to participate in the discussions of such problems.

The **Problems for Further Studies** are not in the requirement. These problems are for those students who have the mathematical curiosity and motivation and want to understand further the beautiful and wonderful world of mathematics. Some of the solutions (or methods leading to solutions) of these problems might not be in the lectures and so students are encouraged to read the textbook to find the right ways for solving these problems.

Section	Page	Assigned Problems	Problems for Further Studies
0.1	9	1, 3, 7, 11, 15, 19, 23, 27, 31, 35, 41	29, 39
0.2	20	3,7,13, 17, 19, 23, 27, 33, 35, 39, 41, 49, 67, 71, 74, 75, 77	51, 64, 65, 79, 81, 83, 85
0.4	38	3, 4, 5,13, 19, 31, 37, 49	41, 42, 53, 55, 57
0.5	48	2,4,5, 7, 9, 10, 11, 12 (sketch the graphs by hand) 33, 34, 49, 53	39, 41, 42, 45, 57
0.6	61	2,3, 11, 19, 23, 51, 53, 55, 57, 61, 67, 87	73, 75
0.7	70	3, 4, 5, 9, 11, 13, 15, 27, 29, 31, 33, 43, 47, 51, 55	61, 65, 66
0.8*	76	3,10 23, 27, 39	
1.1	89	1, 2, 3, 5, 29, 31, 39, 40 41 (treat Problem 41 as a writing exercise)	27, 28, 33, 40
1.2	100	2,5, 11, 17, 23, 29, 31, 37, 39, 41, 42, 47, 50, 59, 60	33, 34, 35, 36, 57, 58 61, 62, 63, 64, 67, 68
1.3	111	1, 7, 9, 13, 15, 27, 37, 43, 45	47, 49, 51, 52, 54, 61
1.4	122	1, 4, 9, 11, 15,21,25, 33, 39, 41, 49	52, 53, 55, 65, 66, 67, 68
1.5*	135	3, 5, 15, 19, 21, 33, 39, 41, 49, 51, 53	
2.1	160	4, 7, 11,13,35,39, 55	49, 50, 53, 54
2.2	173	3,5, 7,11, 15, 21,22,23,24,25,26,31,33	43, 45, 46, 47, 48, 51, 52
2.3	183	4, 5, 11, 17, 23, 25, 29, 33, 35, 37, 41, 45	55, 56, 57, 58, 61
2.4	194	4, 5, 7, 9, 11, 17, 21, 25, 33, 41	37, 45, 46, 47, 48, 49
2.5	203	5,7,11,14,17,23,31,33,39,, 45, 46, 51	43, 44, 47, 48, 49
2.6	211	1, 9, 15, 21, 27, 31, 35, 41, 45	57
2.7	218	2, 7, 9, 15, 21, 27, 29, 33, 37, 41, 47	55, 57, 58
2.8	227	2, 7, 9, 13, 17, 31, 33, 35	38, 39, 40, 49, 60
2.9	236	4, 5, 9, 11, 19, 21, 27, 35, 37, 41	29, 31, 32, 34, 44, 45, 46
3.1	249	7, 11, 17, 21, 31, 35, 39, 47, 49, 50	43, 44, 45, 46, 51, 52
3.2*	256	2, 7, 9, 21, 25, 29	
3.3	267	3, 5, 9, 13, 17, 21, 23, 31, 35, 41, 53	57, 58, 60
3.4	276	1, 5, 9, 13, 15, 19, 27, 33, 35, 39, 43, 45	50, 53, 55, 56, 57, 58
3.5	284	1, 5, 9, 17, 21, 23, 29, 37, 41, 45, 47, 51	58, 59, 60
3.6	296	3, 5, 11, 19, 27, 35, 43	54, 55, 57, 59, 63
3.7	306	7, 13, 19, 21, 29	
4.1	321	3, 5, 11, 17, 23, 29, 35, 41, 47, 55, 57, 59, 71	61, 76, 77
4.2	340	3, 7, 11, 15, 23, 27, 29, 31, 33	39, 40, 43, 45
4.3	348	3, 9, 13, 27, 31, 41, 43	45, 47, 48, 49
4.4	361	1, 3, 5, 9, 13, 19, 23, 31, 33, 55, 57	43, 45, 46, 53, 54
4.5	371	2, 5, 9, 13, 17, 21, 25, 29, 32, 33, 36 40, 41, 43, 45, 55	60
4.6	381	1, 2, 3, 5, 7, 11, 17, 21, 25, 27, 31, 37, 41 45, 47, 51, 55, 67, 73, 75, 77	68, 69, 70, 71, 72
4.7*	261	5, 7, 11, 13, 15, 23, 31	
5.1	408	1, 2, 5, 9, 15, 19, 27, 29, 35	36, 38, 40, 46

* These sections are optional.

Weekly Worksheet Assignments

Week	Section	Page	Weekly Worksheet Assignments
1	0.1	9	8, 12, 16, 22, 36
	0.2	20	8, 14, 28, 32, 38, 42, 68, 70, 76,
	0.4	38	6, 14, 18, 32
2	0.1	9	20, 24
	0.2	20	76
	0.4	38	14, 18
	0.5	48	6, 8, 34, 50
	0.6	61	6, 16, 24, 52, 62, 68
	0.7	70	6, 12, 44
	0.6	61	58, 70
3	0.7	70	22, 46
	1.1	89	6, 30, 39, 40, 41
	1.2	100	8, 10, 20, 28, 38, 42
	1.1	89	32, 36
4	1.2	100	24, 30, 60
	1.3	111	12, 16, 26, 38, 44
	1.4	122	8, 12, 22, 42, 50
	2.1	160	36, 40, 56
	1.3	111	20, 26
5	1.4	122	14, 30, 44
	2.2	173	8, 10, 16
	0.2	20	26, 46
	2.3	183	6, 12, 18, 24, 28, 44
	2.4	194	6, 8, 12, 16
6	2.2	173	18
	2.3	183	16, 26
	2.4	194	20, 34
	2.5	203	6, 10, 16, 32
	2.6	211	8, 14, 32, 36
	2.7	218	10, 32, 38, 42
	2.5	203	20
	2.6	211	34
7	2.7	218	14, 48
	2.8	227	8, 10, 18, 32, 36
	2.9	236	6, 10, 18, 38
	3.1	249	18, 20, 32, 36
	2.8	227	6, 14
	2.9	236	22, 42
	3.1	249	40, 42
8	3.3	267	6, 14, 20, 36, 40
	3.4	276	6, 16, 20, 32, 36, 44
	3.3	267	18, 24, 32
	3.4	276	10, 14, 40, 46
	3.5	284	10, 22, 30, 38, 42
9	3.6	296	6, 12, 20, 28
	3.5	284	18, 26, 46,
	3.6	296	26, 42
	3.7	306	8, 14, 20, 22, 29
10	4.1	331	8, 20, 24, 38, 48, 56, 60
	4.1	331	12, 30, 42, 58,
	4.2	340	8, 16, 28, 32
	4.3	348	4, 14, 28, 42
11	4.4	361	6, 14, 18, 32, 34
	4.2	340	12, 24, 30
	4.3	348	10, 32,
	4.4	361	24, 56
	4.5	371	10, 18, 26, 28, 32, 42
	4.6	381	6, 12, 24, 32, 42, 52
	4.5	371	6, 14, 22, 33, 46
12	4.6	381	18, 22, 38, 46, 56,
	5.1	408	6, 10, 16, 20, 28, 30, 35